



EPI UPDATES

April
2015

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Animal Rabies – Tips on Contact Investigation

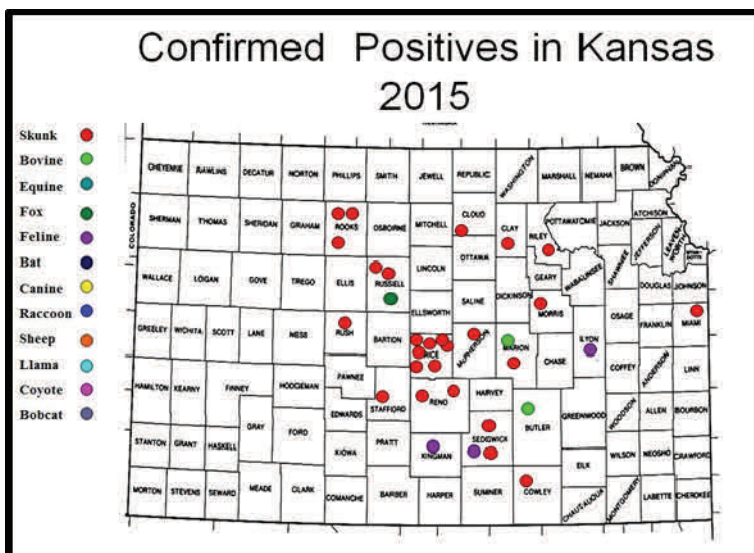
by Chelsea Raybern, MPH

As of April 13, 2015, 32 cases of animal rabies have been reported in Kansas: 26 skunks, three cats, two cows, and one fox. Rabies is a highly fatal viral zoonosis, and any mammal can get rabies. Wildlife serves as the primary source of infection; the skunk is the reservoir for rabies in Kansas. It is anticipated that as the weather warms up outside the number of rabies cases will continue to rise due to increased interactions between humans and animals with wildlife.

It is important that local health investigators understand how to assess exposure and conduct rabies contact investigations.

Below are a few tips to assist local investigators after they receive report of an animal testing positive or unsuitable for rabies:

- Identify if any humans or animals were exposed to the “rabid” animal.** The rabies virus is found in the saliva and neural tissue of an infected animal. The common mode of transmission is through a *bite* from a rabid animal, but rabies transmission can occur through *non-bite* exposures.
 - **Bite exposure** – Any penetration of the skin by teeth.
 - **Non-bite exposures** – Contamination of fresh open wounds with saliva or neural tissue, contamination of mucous membranes (e.g., lining of the mouth or inside eyelids) with saliva or neural tissue, scratches from wildlife (e.g., skunk, raccoon, feral cat), and corneal and organ transplantations from humans infected with rabies.
- Contact such as petting or handling an animal, or contact with blood, urine, or feces does not constitute an exposure. Once the material containing the virus is dry, the virus is considered noninfectious.
- Bat exposures should be handled more cautiously** due to the limited visibility of injuries inflicted from a bat bite or scratch. Any direct contact with a bat constitutes an exposure as well as finding a bat in the same room as a person who might be unaware that a bite or direct contact had occurred (e.g., a deeply sleeping person awakens to find a bat in the room, or an adult witnesses a bat in the room with a previously unattended child, mentally disabled person, or intoxicated person).



Source: http://www.ksvdl.org/images/rabies-maps/KS15_map.JPG

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- **Humans that have been exposed should receive rabies post-exposure prophylaxis (PEP).** Administration of PEP depends on the person's rabies vaccination status.
 - **Previously unvaccinated and healthy persons** – human rabies immunoglobulin (HRIG) and four doses of rabies vaccine on day 0, 3, 7, and 14.
 - **Previously unvaccinated and immunocompromised persons** – HRIG and five doses of rabies vaccine on day 0, 3, 7, 14, and 28.
 - **Previously vaccinated persons** – two doses of rabies vaccine on day 0 and 3. HRIG should not be given.HRIG should always be administered in a previously unvaccinated person that has been exposed, even if it was a non-bite exposure. HRIG can be given up to and including day 7 of the vaccination series.
- **Animals that have been exposed are managed based on vaccination status.** Vaccination history will determine whether the animal needs to undergo a 45-day observation period or 6-month quarantine (or euthanasia).
 - **45-day observation** – Dogs, cats, ferrets, horses, cattle, and sheep that are current on rabies vaccination are to be immediately revaccinated and observed for changes in behavior/health by the owner for 45 days. Under observation, an animal can be kept under normal handling procedures and go about its daily routine.
 - **6-month quarantine** – Dogs, cats, ferrets, horses, cattle, and sheep that are owned and wanted but are not current on rabies vaccination, or are completely unvaccinated, are to be quarantined for six months. The location of quarantine is determined by the local health officer. An animal under quarantine has to be kept in a manner that restricts any contact with humans or other animals. All dogs, cats, and ferrets should be vaccinated one month prior to release from quarantine. Stray, unclaimed, or unwanted animals should be euthanized immediately.

If an animal develops signs suggestive of rabies during the 45-day observation period or 6-month quarantine, it should be euthanized immediately and tested for rabies.

The Bureau of Epidemiology and Public Health Informatics, Infectious Disease Epidemiology and Response Section is here to provide assistance and support 24 hours a day, seven days a week. Call 1-877-427-7317 for immediate assistance for any rabies-related questions. Answers to many questions can also be found in the Rabies Disease Investigation Guidelines (http://www.kdheks.gov/epi/Investigation_Guidelines/Rabies_Disease_Investigation_Guideline.pdf).



Source: <http://kids.sandiegozoo.org>



Source: <http://commons.wikimedia.org>

Morris County Hospital Honored for Hepatitis B Vaccine Birth Dose Rate

by Anne Straily, DVM, MPH

Congratulations to Morris County Hospital! Morris County Hospital is the newest entry into the Immunization Action Coalition's Hepatitis B Birth Dose Honor Roll and is the first hospital in Kansas to be given this honor. The Birth Dose Honor Roll recognizes hospitals and birthing centers that have attained at least 90% coverage rates in administering the hepatitis B vaccine at birth and also have policies and procedures in place to prevent perinatal hepatitis B transmission. Morris County Hospital immunized 97% of infants born at their facility from January 1 to December 31, 2014.

The national standard of care to prevent hepatitis B infection in infants is to administer hepatitis B vaccine to all newborns before they leave the hospital or birthing center. This standard of care acts as a safety net to protect newborns from a wide range of medical errors that may lead to infants being unprotected from perinatal hepatitis B infection. The Birth Dose Honor Roll helps to raise awareness about the importance of the hepatitis B birth dose in preventing perinatal hepatitis B transmission. For more information on the Hepatitis B Birth Dose Honor Roll, please visit www.immunize.org/honor-roll/birthdose or contact Anne Straily, Perinatal Hepatitis B Prevention Coordinator at (785) 296-5588 or astraily@kdheks.gov.

Disease Reporting and Disease Control Performance Measures

by Daniel Neises, MPH

Public Health Emergency Preparedness Cooperative Agreement
 Capability #13: Public Health Surveillance and Epidemiological Investigation
 Budget Period 3 (July 2014 – June 2015), as of 4/3/15

Selected Diseases:

Disease	Case Classification Criteria
Hepatitis A	confirmed
Salmonellosis	confirmed, excluding typhoid fever
<i>E. coli</i> , STEC	confirmed
Shigellosis	confirmed
Tularemia	confirmed and probable
Varicella	confirmed and probable
Botulism	confirmed, excluding infant botulism
Measles	confirmed
Meningococcal disease	confirmed
Pertussis	confirmed, with laboratory results

Disease Reporting: Proportion of selected disease reports received by a public health agency within the awardee-required timeframe. Calculated by using EpiTrax fields:

(Lab Test Date or Date Diagnosed – Presumptive) – (Date Reported to Public Health)
 \leq KDHE-required disease reporting timeframe

Disease Control: Proportion of reports of selected disease for which initial control measures were initiated within an appropriate timeframe. Calculated by using EpiTrax fields:

(Date LHD Investigation Started) – (Date Reported to Public Health)
 \leq CDC-required timeframe

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Disease Reporting

Disease	KDHE Required Timeframe	Statewide Received	Statewide Received On Time	%	% Change From Previous Month
Hepatitis A	7 days	6	3	100	-
Salmonellosis	7 days	317	312	98	-
<i>E. coli</i> , STEC	7 days	47	47	100	-
Shigellosis	7 days	36	35	97	-
Tularemia	7 days	13	13	100	-
Varicella	7 days	210	193	92	+1
Botulism	4 hours*	-	-	-	-
Measles	4 hours*	10	9	90	-
Meningococcal disease	4 hours*	-	-	-	-
Pertussis	4 hours*	169	149	88	-

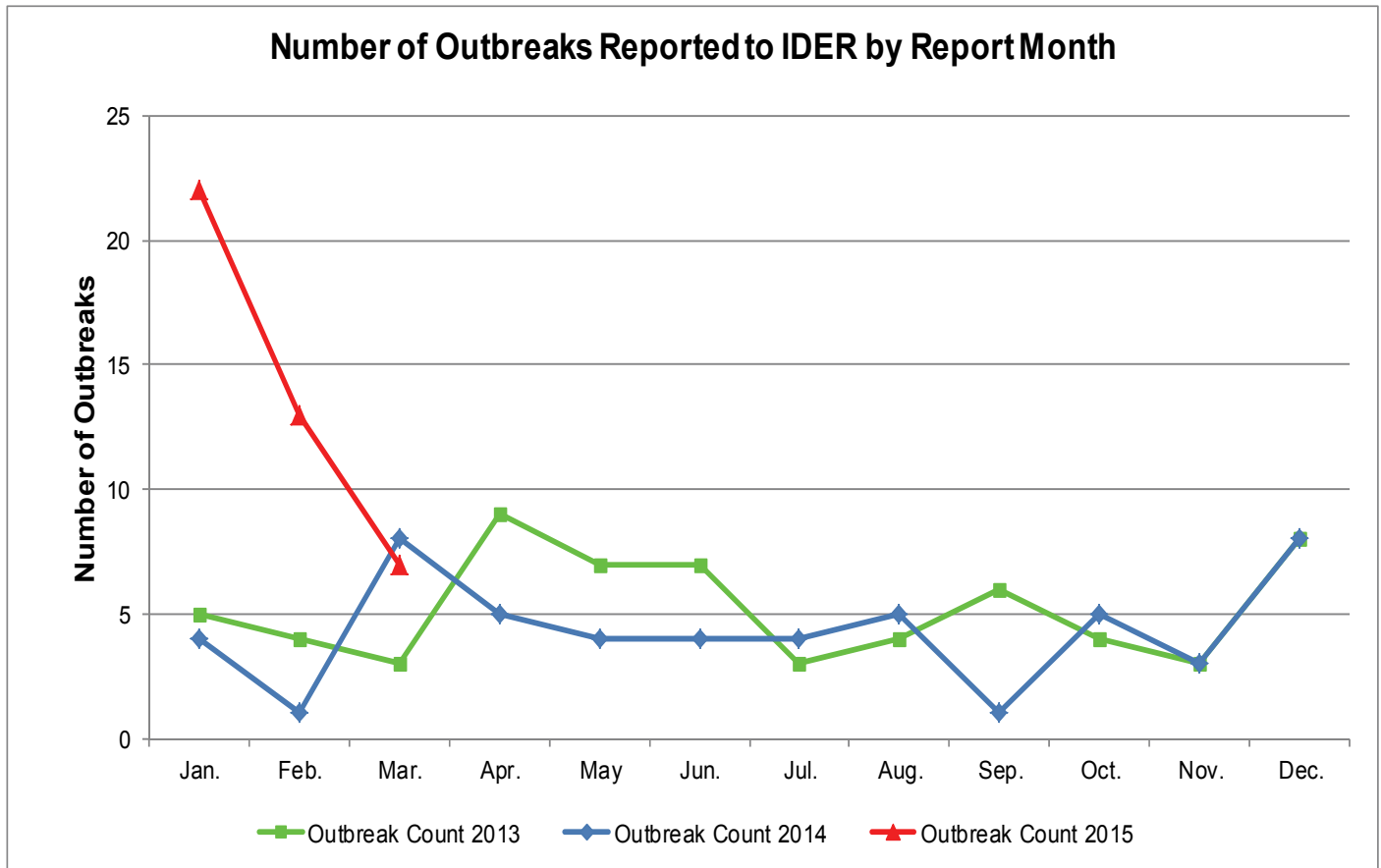
*Because EpiTrax does not capture time reported to public health, KDHE is allowed to "consider cases as immediately reported if the selected case event date and date of first report to a health department occur on the same date."

Disease Control

Disease	CDC Required Timeframe	Statewide Received	Statewide Investigated On Time	%	% Change From Previous Month
Hepatitis A	7 days	6	6	100	-
Salmonellosis	3 days	317	237	75	-5
<i>E. coli</i> , STEC	3 days	47	37	78	-2
Shigellosis	3 days*	36	26	72	-1
Tularemia	2 days	13	9	75	-
Varicella	1 day*	210	184	88	-
Botulism	1 day	-	-	-	-
Measles	1 day	10	10	100	-
Meningococcal disease	1 day	-	-	-	-
Pertussis	1 day*	169	134	79	-

*Collecting data for these diseases is optional. KDHE has defined these timeframes, not CDC.

Monthly Outbreak Summaries



Date Reported	Exposure Setting	Transmission	Disease	County
3/4/2015	Child care center	Indeterminate / Other / Unknown	Campylobacteriosis	Butler
3/4/2015	Caterer	Food	<i>Bacillus cereus</i>	Sherman
3/5/2015	School or college	Food	Norovirus	Johnson
3/9/2015	Banquet facility	Indeterminate / Other / Unknown	Outbreak Case - Unknown Etiology	Sherman
3/9/2015	Hotel or motel	Food	Salmonellosis	Out of Country
3/11/2015	Hotel or motel	Indeterminate / Other / Unknown	Cryptosporidiosis	Out of Country
3/27/2015	Private home	Indeterminate / Other / Unknown	Norovirus	Johnson

Vaccine-Preventable Disease Surveillance Indicators

by Anne Straily, DVM, MPH

The completeness and quality of specific surveillance indicators for vaccine-preventable diseases (VPDs) reported to the Kansas Department of Health and Environment (KDHE) from January 1 to March 31, 2015, can be found in the table below. The bolded percentages represent the indicators that have less than 90% completion. The case counts presented in this report are preliminary and are subject to change.

Keep up the good work! The indicators date of birth, gender, race, ethnicity, hospitalization, and mortality status were completed for at least 90% of all VPDs reported. The indicators onset date and vaccination status were at least 90% complete for all pertussis and varicella cases. All indicators were at least 90% complete for *Haemophilus influenzae* cases except for onset date. Over 90% of *Haemophilus influenzae* cases were accepted and completed in a timely manner. All indicators, with the exception of transmission setting, were completed for the one meningococcal case.

Still room for improvement... Less than 90% of pertussis, *Streptococcus pneumoniae*, and varicella cases were accepted within three days of report to the local health department. Less than 90% of pertussis and *Streptococcus pneumoniae* case investigations were completed within the 14-day time limit. Completion of symptom profile data for pertussis and varicella cases, although much improved from the previous quarter, continues to be less than 90%. Characterization of rash is the symptom most frequently not completed in varicella cases.

Please continue to focus on completing these fields in EpiTrax for all VPDs as the goal is to reach 90% or higher completion on all indicators. For questions regarding this data, please contact Anne Straily at (785) 296-5588 or astraily@kdheks.gov.

VPD Indicators Reported from February 1 to February 28, 2015 in Kansas

Indicators	<i>Haemophilus influenzae</i> , invasive	Meningococcal	Pertussis	<i>Streptococcus pneumoniae</i> , invasive	Varicella
Number of reported cases	14	1	174	55	64
% of cases with date of birth	100%	100%	100%	100%	96.9%
% of cases with gender	100%	100%	100%	100%	100%
% of cases with race	100%	100%	99.4%	98.2%	100%
% of cases with ethnicity	100%	100%	99.4%	94.5%	100%
% of cases with onset date [‡]	85.7%	100%	93.7%	85.5%	90.8%
% of cases with hospitalized noted	100%	100%	97.7%	96.4%	93.8%
% of cases with died noted	92.9%	100%	97.7%	90.9%	93.8%
% of cases with vaccination status*	92.9%	100%	94.3%	85.5% [§]	92.3%
% of cases with transmission setting [¶]	N/A**	0%	90.8%	N/A**	84.6%
% of investigations completed by local health departments within 14 days ^{§§}	92.9%	100%	54.6%	83.6%	90.6%
% of cases accepted within 3 days of report to LHD ^{¶¶}	92.9%	100%	83.3%	76.4%	79.7%
Median # of days from report to case acceptance (range) ^{¶¶¶}	0 (0-11)	0 (0)	1 (0-83)	1 (0-30)	0 (0-67)
% of cases with completed symptom profiles	N/A**	N/A**	82.8%	N/A**	31.3%

*Excludes cases with a State Case Status of "Out of State" or "Not a Case."

[‡]Data is pulled from onset date field within the clinical tab, not the investigation tab.

*Unknown is considered a valid response if patient is older than 18 years of age.

[§]Indicator considered complete if either polysaccharide or conjugate pneumococcal vaccine history is documented.

[¶]Unknown is considered a valid response for this indicator.

**Indicator field is not included in supplemental disease form; *S. pneumoniae* and *H. influenzae* do not have clinical case definitions.

^{§§}Status is calculated based on when local health department completes investigation.

^{¶¶¶}Time is from public health report date to when local health department accepts case.

EpiTrax Data Quality Indicators

by Sheri Tubach, MPH, MS

The Bureau of Epidemiology and Public Health Informatics has implemented a set of monthly quality indicators and performance measures to encourage data quality improvement in EpiTrax and timeliness of investigations. The first column is the EpiTrax field. The second column represents the number of cases with data in the field, and the third column, percent completed, represents the frequency of completion of the data field in EpiTrax. The indicators in red text represent a decrease in the percent complete since last month. There was a higher number of cases where investigations were completed within 14 days. We have also added three new indicators (in blue text), persons interviewed, persons lost to follow-up, refused interview, and persons not interviewed. For questions, contact Sheri Tubach at stubach@kdhhs.gov.

March 2015		State's Total Number of Cases* = 231	
EpiTrax Indicators			
EpiTrax Field	Number of Cases with Field Completed	Percent Completed	
Address City	228	99	
Address County	231	100	
Address Zip	228	99	
Date of Birth	229	99	
Died	208	90	
Ethnicity†	194	84	
Hospitalized	212	92	
Occupation	126	55	
Onset Date	181	78	
Pregnancy††	81	66	
Race †	207	90	
Sex †	231	100	
Date LHD investigation started	220	95	
Date LHD investigation Completed	188	81	
Persons Interviewed	165	71	
Persons Lost to Follow-Up	8	4	
Persons Refused Interview	3	1	
Persons Not Interviewed	55	24	
Performance Measures			
	Number of Cases	Percent of Cases	
Cases accepted by LHDs for case investigation within three days of report to public health	188	81	
Cases that had investigations completed by LHDs within 14 days of report to public health	193	84	

* Calculations do not include Hepatitis B - chronic, Hepatitis C – past or present, or Rabies.

** Out-of-state, discarded, deleted, or those deemed to be not a case are not included in this calculation.

† Unknown considered incomplete.

†† Pregnancy completeness calculated on females only.



Disease	Reported Disease Counts - March 2015						Grand Total	3 Year Avg. 2012-2014
	Not Available	Confirmed	Not a Case	Probable	Suspect	Unknown		
	Count	Count	Count	Count	Count	Count		
Amebiasis (<i>Entamoeba histolytica</i>)	0	0	0	1	0	0	1	0
<i>Anaplasma phagocytophilum</i> (f. HGE)	1	0	0	0	0	0	1	0
Campylobacteriosis	16	13	0	19	1	0	49	40
<i>Clostridium perfringens</i> food intoxication	0	0	0	1	0	0	1	1
Cryptosporidiosis	3	7	0	4	0	0	14	8
Dengue	1	0	0	0	0	0	1	0
Ebola Active Monitoring	2	0	2	0	0	0	4	0
Ehrlichiosis, <i>Ehrlichia chaffeensis</i> (f. HME)	1	0	0	0	0	0	1	0
Giardiasis	2	6	0	0	0	0	8	6
HUS - Hemolytic Uremic Syndrome postdiarrheal	1	0	0	0	0	0	1	0
<i>Haemophilus influenzae</i> , invasive disease	2	5	1	0	0	0	8	5
Hepatitis A	0	0	1	4	1	0	6	21
Hepatitis B virus infection, chronic	9	0	203	21	0	0	233	50
Hepatitis B, acute	0	0	3	1	0	0	4	9
Hepatitis C virus, past or present	121	53	62	2	6	0	244	186
Hepatitis C, acute	2	0	0	0	0	0	2	2
Influenza	0	6	4	0	0	0	10	3
Legionellosis	2	0	0	0	0	0	2	1
Lyme Disease (<i>Borrelia burgdorferi</i>)	2	1	11	1	1	0	16	12
Measles (rubeola)	2	0	2	0	1	0	5	1
Meningitis, Bacterial Other	2	0	0	0	0	0	2	1
Mumps	0	0	1	0	0	0	1	3
Norovirus	0	4	0	0	0	0	4	16
Pertussis	33	1	17	2	8	0	61	33
Rabies, animal	17	8	0	0	1	0	26	19
Rubella	0	0	36	0	0	0	36	28
Salmonellosis	2	17	2	0	0	0	21	18
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	1	1	0	0	2	0	4	6
Shigellosis	1	4	0	0	0	0	5	4
Spotted Fever Rickettsiosis (RMSF)	2	0	2	1	0	0	5	7
Streptococcal disease, invasive, Group A	0	13	0	0	0	0	13	6
<i>Streptococcus pneumoniae</i> , invasive disease	4	18	0	0	1	0	23	11
Transmissible Spongiform Enceph (TSE / CJD)	1	0	0	0	0	1	2	1
Tularemia (<i>Francisella tularensis</i>)	0	0	1	0	0	0	1	0
Varicella (Chickenpox)	5	2	17	15	0	0	39	46
West Nile virus non-neuroinvasive disease	0	0	2	0	0	0	2	1
Yersiniosis	1	0	0	0	0	0	1	1
Grand Total	236	159	367	72	22	1	857	547